AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

1. (Currently Amended) A separating material ~~producable~~ formed by a process comprising the steps of:

~~a)~~ providing a solid substrate having a substrate surface, ~~having~~ wherein amino-functional groups are coupled to the substrate surface[[,]];

~~b)~~ covalently coupling ~~of~~ the amino-functional groups with a thermally labile radical initiator[[,]]; and

~~c)~~ contacting the substrate surface with a solution of polymerizable monomers ~~under conditions~~, wherein ~~where~~ thermally initiated graft copolymerization of the monomers ~~takes place, to form~~ forms a structure of adjacent functional polymer chains on the substrate surface ~~of the substrate~~.

2. (Currently Amended) ~~The~~ A separating material ~~of~~ according to claim 1, wherein the solid substrate is a porous polymeric material~~, preferably a porous polymeric material~~ having a pore size ~~that is~~ sufficiently large to allow passage of blood, blood plasma, or blood serum through the solid substrate ~~material~~.

3. (Currently Amended) ~~The~~ A separating material ~~of~~ according to one of claims 1 ~~or~~ and 2, wherein the solid substrate is ~~in the form~~ selected from the group of: a membrane, ~~a hollow fibre membrane,~~ a particle bed, a fibre mat, ~~or~~ and beads~~, preferably a hollow fibre membrane~~.

4. (Currently Amended) ~~The~~ A separating material ~~of any of claims~~ according to claim 1 ~~to 3~~, wherein the solid substrate ~~is made of~~ includes a biocompatible material.

5. (Currently Amended) ~~The~~ A separating material ~~of any of claims~~ according to claim 1 ~~to 4~~, wherein the solid substrate is made of a material selected from ~~the~~ a group~~, consisting~~ of compounds including:

polyacrylates, polystyrene, polyethylene oxide, cellulose, cellulose derivatives, polyethersulfone (PES), polypropylene (PP), polysulfone (PSU), polymethylmethacrylate (PMMA), polycarbonate (PC), polyacrylonitrile (PAN), polyamide (PA), polytetrafluorethylene (PTFE), cellulose acetate (CA), and regenerated cellulose~~, and blends or copolymers of the foregoing, or blends or copolymers with hydrophilizing polymers, preferably with polyvinylpyrollidone (PVP) or polyethyleneoxide (PEO)~~.

6. (Currently Amended) ~~The~~ A separating material ~~of any of claims~~ according to claim 1 ~~to 5~~, wherein the amino-functional groups are primary amino groups.

7. (Currently Amended) ~~The~~ A separating material ~~of any of claims~~ according to 1 ~~to 6~~, wherein the thermally labile radical initiator~~, as the starting material before coupling to the amine groups on the substrate,~~ comprises at least one~~, preferably two~~ carboxylic ~~groups~~ group.

8. (Currently Amended) ~~The~~ A separating material ~~of any of claims~~ according to claim 1 ~~to 7~~, wherein the thermally labile radical initiator includes compounds which decompose to give free radicals ~~on~~ upon thermal activation~~,~~

~~preferably the thermally labile radical initiator being selected among azo compounds or peroxides~~.

9. (Currently Amended) ~~The~~ A separating material ~~of any of claims~~ according to claim 1 ~~to 8~~, wherein the thermally labile radical initiator is 4,4'-azobis-(4-cyanovaleric acid) or 2,2'-azobis-[N-(2-carboxyethyl)-2-methylpropionamidine.

10. (Currently Amended) ~~The~~ A separating material ~~of any of claims~~ according to claim 1 ~~to 9~~, wherein the polymerizable monomers are selected from compounds having a polymerizable double bond.

11. (Currently Amended) ~~The~~ A separating material ~~of any of claims~~ according to claim 1 ~~to 10~~, wherein the polymerizable monomers are selected from the group, consisting of:

acrylic acid, methacrylic acid, vinyl compounds, ~~and~~ derivatives of ~~the foregoing~~ acrylic acid, methacrylic acid and vinyl compounds,

N,N-Dimethylaminoethyl acrylamide, N,N-Diethylaminoethyl acrylamide, N,N-Dimethylaminopropyl acrylamide (DMPA), N,N-Dimethylaminopropyl methacrylamide, N,N-Dimethylaminoethyl methacrylate, N,N-Diethylaminoethyl methacrylate, N,N-Dimethylaminoethyl acrylate, N-Morpholinoethyl acrylate, N-Morpholinoethyl methacrylate, 1-Vinylimidazole, Trimethylammoniumethyl acrylamide, Trimethylammoniumpropyl methacrylamide, Trimethylammoniumethyl methacrylate, Glycidyl acrylate, Glycidyl methacrylate, Vinyl glycidyl ether, Vinyl glycidyl urethane, 2-Hydroxyethyl methacrylate, 2-Hydroxypropyl methacrylate, Hydroxymethyl methacrylate, N-Vinylpyrrolidone, 2-Vinyl pyridine, 4-Vinyl pyridine, and N-Vinyl-2-methylimidazole.

12. (Currently Amended) ~~The~~ A separating material ~~of any of claims~~ according to claim 1 ~~to 11~~, wherein the polymerizable monomers comprise Dimethylaminopropyl acrylamide (DMPA).

13. (Currently Amended) ~~The~~ A separating material ~~of any of claims~~ according to claim 1 ~~to 12~~, wherein the polymerizable monomers are selected from compounds of the following formula:

$H_2C=C(R^1)-C(O)-X-R^2-N(R^3)_2$,

wherein R^1 = hydrogen, methyl or ethyl group; R^2 = C1-C6-alkyl or aryl group; R^3 = methyl or ethyl group; and X = NH or O.

14. (Currently Amended) A method for ~~the production of~~ producing a separating material comprising the steps of ~~by~~:

~~a)~~ providing a solid substrate having a substrate surface, ~~having~~ wherein amino-functional groups are coupled to the substrate surface[[,]];

~~b)~~ covalently coupling ~~of~~ the amino-functional groups with a thermally labile radical initiator[[,]]; and

~~c)~~ contacting the substrate surface with a solution of polymerizable monomers ~~under conditions~~, wherein ~~where~~ thermally initiated graft copolymerization of the monomers ~~takes place, to form~~ forms a structure ~~of~~ including adjacent functional polymer chains on the substrate surface ~~of the substrate~~.

15. (Currently Amended) ~~The~~ A method ~~of~~ according to claim 14, wherein the solid substrate is a porous polymeric material~~, preferably a porous polymeric material~~ having a pore size ~~that is~~ sufficiently large to allow passage of blood, blood plasma, or blood serum through the solid substrate ~~material~~.

16. (Currently Amended) ~~The~~ A method ~~of any of claims~~ according to claim 14 ~~and 15~~, wherein the solid substrate is ~~in the form~~ selected from the group of: a membrane, ~~a hollow fibre membrane,~~ a particle bed, a fibre mat, ~~or~~ and beads~~, preferably a hollow fibre membrane~~.

17. (Currently Amended) ~~The~~ A method ~~of any of claims~~ according to claim 14 ~~to 16~~, wherein the solid substrate ~~is made of~~ includes a biocompatible material.

18 (Currently Amended) ~~The~~ A method ~~of any of claims~~ according to claim 14 ~~to 17~~, wherein the solid substrate is made of a material selected from ~~the~~ a group~~, consisting~~ of compounds including:

polyacrylates, polystyrene, polyethylene oxide, cellulose, cellulose derivatives, polyethersulfone (PES), polypropylene (PP), polysulfone (PSU), polymethylmethacrylate (PMMA), polycarbonate (PC), polyacrylonitrile (PAN), polyamide (PA), polytetrafluorethylene (PTFE), cellulose acetate (CA), and regenerated cellulose~~, and blends or copolymers of the foregoing, or blends or copolymers with hydrophilizing polymers, preferably with polyvinylpyrollidone (PVP) or polyethyleneoxide (PEO)~~.

19. (Currently Amended) ~~The~~ A method ~~of any of claims~~ according to claim 14 ~~to 18~~, wherein the amino-functional groups are primary amino groups.

20. (Currently Amended) ~~The~~ A method ~~of any of claims~~ according to claim 14 ~~to 19~~, wherein the thermally labile radical initiator~~, as the starting material before coupling to the amine groups on the substrate,~~ comprises at least one~~, preferably two~~ carboxylic ~~groups~~ group.

21. (Currently Amended) ~~The~~ A method ~~of any of claims~~ according to claim 14 ~~to 20~~, wherein the thermally labile radical initiator includes compounds which decompose to give free radicals ~~on~~ upon thermal activation~~, preferably the thermally labile radical initiator being selected among azo compounds or per oxides~~.

22. (Currently Amended) ~~The~~ A method ~~of any of claims~~ according to claim 14 ~~to 21~~, wherein the thermally labile radical initiator is 4,4'-azobis-(4-cyanovaleric acid) or 2,2'-azobis-[N-(2-carboxyethyl)-2-methylpropionamide.

23. (Currently Amended) ~~The~~ A method ~~of any of claims~~ according to claim 14 ~~to 22~~, wherein the polymerizable monomers are selected from compounds having a polymerizable double bond.

24. (Currently Amended) ~~The~~ A method ~~of any of claims~~ according to claim 14 ~~to 23~~, wherein the polymerizable monomers are selected from the group, consisting of:

acrylic acid, methacrylic acid, vinyl compounds, ~~and~~ derivatives of ~~the foregoing~~ acrylic acid, methacrylic acid and vinyl compounds,

N,N-Dimethylaminoethyl acrylamide, N,N-Diethylaminoethyl acrylamide, N,N-Dimethylaminopropyl acrylamide (DMPA), N,N-Dimethylaminopropyl methacrylamide, N,N-Dimethylaminoethyl methacrylate, N,N-Diethylaminoethyl methacrylate, N,N-Dimethylaminoethyl acrylate, N-Morpholinoethyl acrylate, N-Morpholinoethyl methacrylate, 1-Vinylimidazole, Trimethylammoniumethyl acrylamide, Trimethylammoniumpropyl methacrylamide, Trimethylammoniumethyl methacrylate, Glycidyl acrylate, Glycidyl methacrylate, Vinyl glycidyl ether, Vinyl glycidyl urethane,

2-Hydroxyethyl methacrylate, 2-Hydroxypropyl methacrylate, Hydroxymethyl methacrylate, N-Vinylpyrrolidone, 2-Vinyl pyridine, 4-Vinyl pyridine, and N-Vinyl-2-methylimidazole.

25. (Currently Amended) ~~The~~ A method ~~of any of claims~~ according to claim 14 ~~to 24~~, wherein the polymerizable monomers comprise Dimethylaminopropyl acrylamide (DMPA).

26. (Currently Amended) ~~The~~ A method ~~of any of claims~~ according to claim 14 ~~to 25~~, wherein the polymerizable monomers are selected from compounds of the following formula:

$H_2C=C(R^1)-C(O)-X-R^2-N(R^3)_2$,

wherein R^1 = hydrogen, methyl or ethyl group; R^2 = alkyl or aryl group; R^3 = methyl or ethyl group; and X= NH or O.

27. (Currently Amended) A use ~~Use~~ of a separating material of ~~any of claims~~ claim 1 ~~to 13~~ for the extracorporeal treatment of blood, blood plasma or blood serum.

28. (Currently Amended) ~~The~~ A use ~~of~~ in accordance with claim 27, wherein the use is for the extracorporeal removal of endotoxins from blood, plasma or serum of septic patients.

29. (Currently Amended) A use ~~Use~~ of a separating material of ~~any of claims~~ claim 1 ~~to 13~~, wherein the use is for affinity adsorption, ion-exchange adsorption, hydrophobic adsorption, hydrophilic adsorption, or affinity adsorption applications.

30. (Currently Amended) A separating column comprising the separating material of ~~any of claims~~ claim 1 ~~to 13~~, whereby the separating material ~~is in the form of~~ includes beads, ~~the~~ said beads being packed into the separating column, and the beads

having a size sufficient to provide a porosity allowing passage of blood cells through the separating column.

31. (Currently Amended) A separating cartridge, comprising: a tube[[,]]; and multiple hollow fibre membranes potted into the tube, ~~the~~ said tube being fitted with ports, and the hollow fibre membranes having a pore size sufficient to allow passage of blood plasma through the hollow fibre membranes ~~membrane~~, wherein the hollow fibre membranes ~~membrane is made of~~ include the separating material of ~~any of claims~~ claim 1 ~~to 13~~.

32. (New) A separating material according the claim 3, wherein the solid substrate is a membrane, said membrane comprising a hollow fibre.

33. (New) A separating material according to claim 5, wherein the solid substrate includes blends or copolymers of said compounds.

34. (New) A separating material according to claim 33, wherein the blends or copolymers of said compounds further comprise hydrophilizing polymers, polyvinylpyrollidone (PVP), or polyethyleneoxide (PEO).

35. (New) A separating material according to claim 8, wherein the thermally labile radical indicator comprises an azo compound or a peroxide.

36. (New) A method according to claim 16, wherein the solid substrate is a membrane, said membrane comprising a hollow fibre.

37. (New) A method according to claim 18, wherein the solid substrate includes blends or copolymers of said compounds.

38. (New) A method according to claim 37, wherein the blends or copolymers of said compounds further comprise hydrophilizing polymers, polyvinylpyrollidone (PVP), or polyethyleneoxide (PEO).

39. (New) A method according to claim 21, wherein the thermally labile radical indicator comprises an azo compound or a peroxide.